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EXAMINER

FLEURANTIN, JEAN B

ART UNIT	PAPER NUMBER
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2172

DATE MAILED: 08/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/621,687

Applicant(s)

HAMILTON, GRAHAM

Examiner

Jean B Fleurantin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-6 and 8-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6 and 8-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Response to Amendment

1. Claims 1-40 are remained pending for examination.

Response to Arguments

2. Applicant's arguments filed on 6/16/03 with respect to claims 1-40 have been fully considered but they are not persuasive.

In response to Applicant arguments on pages 4 and 5, that Apte does not teach the limitations as recited in claim 1. It is respectfully submitted that Apte teaches the claimed limitations as follow: a computer readable medium, operative to serve as a database interface, having instructions which when executed by a computer system (see col. 3, lines 51-55), as claimed comprise the following steps of receiving a Structure Query Logic (SQL) call at a computer system (thus, client object 400 may initiate calls to server object 402 to access database 404 based on various business rules or business logic implemented within the server object 402, database 404 may be located within the server or be a remote database; which is readable as receiving a Structure Query Logic (SQL) call at a computer system)(see col. 6, lines 31-35). But, Apte does not explicitly indicate mapping the SQL call to a general computer language programming call of a computer application; and executing the general computer language programming call to invoke functions of the computer application that correspond to functions specified by the SQL call. However, Apte implicitly indicates mapping references to a common object request broker architecture server containing an Enterprise JavaBean to back-end data store using primitive data types; which is readable as mapping the database call to a general

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computer language programming call of a computer application)(see cols. 16-17, lines 66-10); and client object 400 may initiate calls to server object 402 to access database 404 based on various business rules or business logic implemented within server object 402 database 404 may be located within the server or be a remote database, server object 402 may also provide access to current enterprise applications 410 and access to legacy applications 408; which is readable as executing the general computer language programming call to invoke functions of the computer application that correspond to functions specified by the database call)(see col. 6, lines 31-37). Further, in column 8, lines 11-16, Apte teaches client can transparently invoke a method on a server object which can be on the same machine or across a network, the object request broker intercepts the call and is responsible for finding an object that can implement the request pass it the parameters, invoke its method and return the results. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Apte with mapping the database call to a general computer language programming call of a computer application; and executing the general computer language programming call to invoke functions of the computer application that correspond to functions specified by the database call. This modification would allow the teaching of Apte to improve the accuracy of the database access bridge system and process, and provide a uniform application development model for tool creation use, and interoperability between various software applications, (see col. 1, lines 40-41 and 56-57).

Applicant admits on page 4, that Apte reference teaches the system in the claimed invention, see col. 6, lines 31-33.

Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant stated that Apte does not teach or suggest “said system operative to execute said general computer programming language call and operative to generate a second database programming language.” It is respectfully submitted that Apte teaches server object 402 contains the actual business logic that is implemented using application programming interfaces that utilize the java defined java database connectivity structured query language database access interface which provides uniform access to a wide range of relational databases, these databases may be found in database 404, server object 402 contains methods used to provide needed functions invoked from client object 400; which is readable as said system operative to execute said general computer programming language call and operative to generate a second database programming language(see col. 6, lines 46-53). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Apte with said system operative to execute said general computer programming language call and operative to generate a second database programming language. This modification would allow the teachings of Apte to improve the accuracy of the database access bridge system and process.

Claim Rejections - 35 U.S.C. § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,269,373 issued to Apte et al. ("Apte").

As per claims 1 and 19, Apte teaches a computer readable medium, operative to serve as a database interface, having instructions which when executed by a computer system (see col. 3, lines 51-55), as claimed comprise the following steps of receiving a Structure Query Logic (SQL) call at a computer system (thus, client object 400 may initiate calls to server object 402 to access database 404 based on various business rules or business logic implemented within the server object 402, database 404 may be located within the server or be a remote database; which is readable as receiving a Structure Query Logic (SQL) call at a computer system)(see col. 6, lines 31-35). But, Apte does not explicitly indicate mapping the SQL call to a general computer language programming call of a computer application; and executing the general computer language programming call to invoke functions of the computer application that correspond to functions specified by the SQL call. However, Apte implicitly indicates mapping references to a common object request broker architecture server containing an Enterprise JavaBean to back-end data store using primitive data types; which is readable as mapping the database call to a general

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computer language programming call of a computer application)(see cols. 16-17, lines 66-10); and client object 400 may initiate calls to server object 402 to access database 404 based on various business rules or business logic implemented within server object 402 database 404 may be located within the server or be a remote database, server object 402 may also provide access to current enterprise applications 410 and access to legacy applications 408; which is readable as executing the general computer language programming call to invoke functions of the computer application that correspond to functions specified by the database call)(see col. 6, lines 31-37). Further, in column 8, lines 11-16, Apte teaches client can transparently invoke a method on a server object which can be on the same machine or across a network, the object request broker intercepts the call and is responsible for finding an object that can implement the request pass it the parameters, invoke its method and return the results. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Apte with mapping the database call to a general computer language programming call of a computer application; and executing the general computer language programming call to invoke functions of the computer application that correspond to functions specified by the database call. This modification would allow the teaching of Apte to improve the accuracy of the database access bridge system and process, and provide a uniform application development model for tool creation use, and interoperability between various software applications, (see col. 1, lines 40-41 and 56-57).

As per claim 2, Apte teaches the medium as claimed wherein said general computer language programming call is an Enterprise Java Bean (EJB) call (thus, Enterprise Java Bean (EJB) which is equivalent to an Enterprise Java Bean (EJB) call)(see col. 7, lines 25-27).

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As per claims 4 and 33, Apte teaches the medium as claimed wherein the computer system is an application server, (see col. 12, lines 17-19).

As per claims 5 and 20, the limitations of claims 5 and 20 are rejected in the analysis of claim 1, and these claims are rejected on that basis.

As per claim 6, Apte teaches the medium as claimed further comprises generating a database call to a database in response to executing the general computer language programming call (thus, client object 400 may initiate calls to server object 402 to access database 404 based on various business rules or business logic implemented within server object 402; which is readable as generating a database call to a database in response to executing the general computer language programming call)(see col. 6, lines 32-36).

As per claim 8, Apte teaches the medium as claimed further comprises validating data operation prior to issuing an SQL call to a database, (see col. 6, lines 49-51).

As per claims 9 and 29, in addition to the discussion in claim 1, Apte further teaches steps of analyzing the components to determine the correspondence between the database elements and the elements of the components that access the database elements (thus, client object 400 may initiate calls to server object 402 to access database 404 based on various business rules or business logic implemented within server object 402 database 404 may be located within the server or be a remote database, server object 402 may also provide access to current enterprise applications 410 and access to legacy applications 408; which is readable as analyzing the components to determine the correspondence between the database elements and the elements of the components that access the database elements)(see col. 6, lines 31-37).

As per claims 10, 16, 22 and 40, the limitations of claims 10, 16, 22 and 40 are rejected in the analysis of claim 1, and these claims are rejected on that basis.

As per claims 11, 30 and 38, Apte teaches the medium as claimed wherein the computer programming language is object oriented and wherein said components are objects (thus, two Java beans may be employed that implement to client object 400 and server object 402; which is equivalent to wherein said components are objects)(see col. 7, lines 18-20).

As per claims 12, 31 and 34, the limitations of claims 12, 31 and 34 are rejected in the analysis of claim 1, and these claims are rejected on that basis.

As per claims 13-15, A teaches the medium as claimed wherein the methods are identified by searching for a method of the form <command prefix>XXX (see col. 18, lines 61-65).

As per claims 17, 24-25, 28 and 39, Apte teaches the medium as claimed wherein said general computer programming language is the Java programming language (thus, the Java programming system which is an object-oriented programming system, object-oriented programming techniques involve the definition creation use and instruction of "objects"; which is equivalent to Java programming language)(see col. 6, lines 1-3).

As per claim 18, Apte teaches the medium as claimed wherein the database call received at the computer system is a first SQL database call and a column layout specified in the first SQL database call is different than a second SQL database call generated to a SQL database in response to executing the general computer language programming call (thus, two Java beans may be employed that implement the client object 400 and server object 402 what makes a bean different from a pure object is that it has an external interface called the properties interface,

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which allows a tool to read what the component is supposed to do and hook it up to other beans and plug it into another environment, two different types of beans may be used-JavaBeans and Enterprise JavaBeans (EJB), JavaBeans are intended to be local to a single process and are often visible at runtime; which is readable as computer system is a first SQL database call and a column layout specified in the first SQL database call is different than a second SQL database call generated to a SQL database in response to executing the general computer language programming call)(see col. 7, lines 18-24).

As per claim 21, Apte teaches the medium as claimed wherein said computer application is in a different computer programming language than said general computer programming language (see col. 7, lines 20-24).

As per claims 23, 27 and 36, Apte teaches the medium as claimed wherein the database call is a Structured Query Logic (SQL) call (thus, structured query language database access interface, which is equivalent to database call is a Structured Query Logic (SQL) call)(see col. 6, lines 49-50).

As per claims 26 and 32, in addition to the discussion in claim 1, Apte teaches accessing said database using said selected one of said software components (thus, server object 402 may also provide access to current enterprise applications 410 and access to legacy applications 408; which is readable as accessing said database using said selected one of said software components)(see col. 6, lines 36-37). Further, in column 6, lines 46-51, Apte teaches Server object 402 contains the actual business logic that is implemented using application programming interfaces that utilize the Java-defined Java database connectivity structured query language database access interface which provides uniform access to a wide range of relational databases;

said system operative to execute said general computer programming language call and operative to generate a second database programming language (thus, server object 402 contains the actual business logic that is implemented using application programming interfaces that utilize the java defined java database connectivity structured query language database access interface which provides uniform access to a wide range of relational databases, these databases may be found in database 404, server object 402 contains methods used to provide needed functions invoked from client object 400; which is readable as said system operative to execute said general computer programming language call and operative to generate a second database programming language)(see col. 6, lines 46-53).

As per claim 35, the limitations of claim 35 are rejected in the analysis of claim 26, and this claims is rejected on that basis.

As per claim 37, the limitations of claims 37 are rejected in the analysis of claim 18, and this claim is rejected on that basis.

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Contact Information

5. Any inquiry concerning this communication from examiner should be directed to Jean Bolte Fleurantin at (703) 308-6718. The examiner can normally be reached on Monday through Friday from 7:30 A.M. to 6:00 P.M.

If any attempt to reach the examiner by telephone is unsuccessful, the examiner's supervisor, Mrs. KIM VU can be reached at (703) 305-8449. The FAX phone numbers for the Group 2100 Customer Service Center are: *After Final* (703) 746-7238, *Official* (703) 746-7239, and *Non-Official* (703) 746-7240. NOTE: Documents transmitted by facsimile will be entered as official documents on the file wrapper unless clearly marked "***DRAFT***".

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 2100 Customer Service Center receptionist whose telephone numbers are (703) 306-5631, (703) 306-5632, (703) 306-5633.



Jean Bolte Fleurantin

August 1, 2003

JBf/



JEAN M. CORRIELUS
PRIMARY EXAMINER